

UNITED STATES DEPARTMENT OF AGRICULTURE

AGRICULTURAL RESEARCH ~~ADMINISTRATION~~ Service

~~RESEARCH SERVICE FOR AGRICULTURE AND INDUSTRIAL CHEMISTRY~~

PEORIA 5, ILLINOIS

June 3, 1954

Dr. Joshua Lederberg
Assoc. Professor of Genetics
Department of Genetics
The University of Wisconsin
Madison 6, Wisconsin

Dear Dr. Lederberg:

Thank you for your very interesting letter of May 25 concerning isolates of Streptomyces for genetical work.

I believe we can furnish you cultures of Streptomyces which will maintain vigorous sporulation through repeated transfers, grow on a synthetic medium at 37° C. and possess a distinct soluble pigment. I am referring to the species, S. viridochromogenes. We have a number of isolates of this and I am sending you 4 strains. I suggest you maintain these cultures on asparagine dextrose agar or potato dextrose agar given below.

S-888

S-942

S-13

NRRL B-1511

These have recently been studied rather extensively as far as carbon utilization, temperature requirements etc. We also have several other cultures of forms representing closely related species should you want them.

We have a number of "pet media" for Streptomyces but none which is satisfactory for all of them. These include Bennett's agar, Emmerson's agar, Czapek agar with 1% starch substituted for sucrose, yeast extract agar and the two formulae given below:

Potato Dextrose Agar

Prepared as follows: three components are prepared separately

1. $MgSO_4$ 0.2 gms
CaCO₂ 0.2 "
glucose 20.0 "
H₂O 100.0 ml.
2. 15 gms. of agar in 400 ml. of tap water
3. 200 gms. of potatoes in 500 ml. of tap water, cook, filter through cheese cloth.

When each of these has been heated, mix, tube, and autoclave.

2- Dr. Joshua Lederberg-6/3-54

Asparagine dextrose agar

Prepared as follows:

glucose	10.0 gms.
asparagine	0.5 "
K ₂ HPO ₄	0.5 "
meat extract	2.0 "
agar	17.0 "
H ₂ O	1000.0 ml.

I shall be happy to give you additional information about these strains or about other possible Streptomyces cultures for this very interesting study.

Sincerely yours,

C W Hesseltine

C. W. Hesseltine, In Charge
Culture Collection Unit
Fermentation Section
Northern Utilization Research Branch